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Part: __ **Title:** Draft Minutes of WG10 at Meetings in Sydney Australia 1995 March 19-24

Purpose of this document as it relates to the target document is:

☐ **Primary Content**

Current Status: Working Draft

☒ **Issue Discussion**

☐ **Alternate Proposal**

☐ **Partial Content**

ABSTRACT:

This document contains the minutes of the meeting of WG10 (STEP Architecture Committee) at Sydney, Australia, 1995 March 19-24

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Part Documents

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Comments to Reader

Draft Minutes of WG10: STEP Architecture Committee at Meetings of ISO TC184/SC4 in Sydney Australia 1995 March 19-24

Submitted by James A. Fulton

March 31, 1995

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WG10: STEP Architecture Committee Minutes of Sessions at Meetings of ISO TC184/SC4 in Sydney Australia 1995 March 19-24

Monday, 20 March 1995

1. Initial Instructions from Brad Smith

1.1. Convenor

Brad appointed Julian Fowler as Convenor.

1.2. Initial Tasks

Presentation to SC4 on Friday:

- reason for existence,
- membership,
- approach.

List of problems to address.

2. Agenda

Proposed agenda entered as WG10 N001

Approval of Agenda

Membership

Points of contact with other WGs and other standards organizations

Nominations for Convenor, Deputy Convener, Secretary

Chair and minute taker for Sydney meeting (Jim Fulton)

Terms of Reference

WG10 Technical Plan

- o Work Items
- o Issues Log
- o Assignments
- o Priorities
- o Scheduling

Report to SC4

Requirements for future meetings (scheduling with other WGs)

Ground rules for operations

Any other business

3. Chair and minute taker for Sydney meeting

Jim Fulton was appointed as minute taker for Sydney meeting.

4. Nominations for Convenor, Deputy Convener, Secretary

Moved by Jim Fulton that WG10 express its confidence in Julian Fowler as Convener of WG10. Passed with 10 ayes, no objections and 2 abstentions.

Deputy Convener. Nominations: Phil Kennicott. Moved by Julian Fowler; passed with 1 abstention.

Secretary will manage and distribute documents. Chair will try to find a volunteer.

5. Membership

5.1. Attending Members

| <i>Name</i> | <i>Dlgtm</i> | <i>Home WGs</i> | <i>Other standards involvement</i> |
|-------------------|--------------|----------------------|--|
| Julian Fowler | UK | WG5/P1 | POSC, SGML, CORBA |
| Jim Fulton | US | WG5/P2 | JTC1/SC7, JTC1/SC21/WG3/CSMF |
| Jochen Haenisch | Nor | WG3/T1, WG4/T6 | TC211, POSC, OMG |
| Martin Hardwick | US | WG7 | CORBA, ODMG |
| Hiroiyuki Hiraoka | Japan | WG3/T6, T13 | |
| Phil Kennicott | US | SEDS | IGES, CORBA |
| Felix Metzger | Swit | WG2, 5, 7 | SGML, HITIME, ANSI C, C++, VDAFS |
| Jon Owen | UK | WG6, WG5/P1 | ISO 9000, IGES, EDIF, OSI Interoperability |
| Nigel Shaw | ProSTEP | Editing, et al | SGML |
| Bernd Wenzel | Ger | WG3/T14, WG5/P2, WG7 | SGML, TC211 |
| Matthew West | UK | WG3.T12, WG5/P1 | Petrotechnical Open Systems Corporation, CDIF |
| Yuhwei Yang | US | WG4, WG5/P1 | EDIFACT, IGES, ISO 9000, IEC EDIF |

5.2. Discussion of Membership

WG2, WG8, JWG9 not currently represented. Julian will pursue the question of WG8 membership.

Phil Kennicott: JWG9 is our point of contact with a large number of external standards, and should be represented by someone with knowledge of those other organizations. Nigel to seek member from JWG9.

Bernd Wenzel : The group will become less efficient if we grow longer.

Phil Kennicott: The other WGs need official representatives in order to establish a meaningful pipeline.

Felix Metzger : What is the process for selecting members.

6. Points of contact with other WGs and other standards organizations

The membership table above contains points of contacts. It will be refreshed after a draft is distributed.

7. Ground rules for operations

Meeting chair should not participate in discussions.

Julian Fowler: A set of candidate ground rules is available from EPISTLE.

Nigel Shaw: We need a provision for minority reports.

Felix Metzger: We need rules for selection of members.

Julian Fowler: Given the manner by which WG10 was formed, can new members be added? By whom? By their own application, by nomination by WG10, by SC4.

Felix Metzger : Balloting on members is difficult.

Matthew West : Can we define levels of membership.

Felix Metzger, Jim Fulton: What constitutes a quorum?

Julian Fowler: A drafting committee to prepare a ground rules document.

Yuhwei Yang : How are members removed?

Felix Metzger: When can WG10 meet? Julian Fowler : WG10 may announce meeting whenever needed.

Felix Metzger : There should be different rules for extra meetings. Bernd Wenzel: Meetings should be limited as much as possible to ISO TC184 meetings, and preferably in the pre-meetings.

Matthew West : Meetings between SC4 meetings should be meetings of subcommittees, that bring recommendations to formal WG10 meetings.

Phil Kennicott: Issue list must be maintained. Also need list of principles that governs our actions, so that decisions once made need not be revisited over and over.

8. Terms of Reference

Jon Owen: Are we talking about architecture or architectures?

Phil Kennicott: What “issues and corresponding methods” are we talking about? Any issue that covers more than one WG belongs here.

Julian Fowler : WG5/P1 is defining documentation of current methods. That work will provide basis for comments and issues.

Felix Metzger : There is NWI that will make methods document a standard. Jon Owen: Such proposals have not been successful in the past.

Nigel Shaw : The intention of the writers of the resolution is as follows:

Resolution 217 (Greenville #7 - October 1994, PMAG 6, 7)

SC4 establishes a new working group to resolve the technical direction and related technical issues of SC4 so that the results are consistent with the SC4 vision and acceptable to SC4 as a whole.

- Nigel Shaw: This is just boilerplate to establish general authority.

The objective is to define and maintain a consistent set of architectures for the standards within SC4.

- Nigel Shaw: There was debate on what this meant.
- Jim Fulton: Does the language imply that SC4 is delivering a self-complete architecture?
Nigel Shaw: Not in my opinion.
- Felix Metzger: What is this to be an architecture for?
 - Nigel Shaw: This should be resolved by this group.
 - Felix Metzger: The end-result should be valuable to industry.
- Nigel Shaw: This group should define what the long-term value-added is of the group.

The principal deliverable of the working group is a standard or set of standards that document the architectures and the corresponding framework for methods.

- Phil Kennicott: How are we going to define an architecture? Can EXPRESS be used?
 - Nigel Shaw: That is an important question to record but not answer now. TC184/SC5 is developing an architecture to which proposals such as CIMOSA are being input, and has an approach to defining architectures.

Membership in this working group shall be limited. National bodies are asked to nominate members to the WG based on the limited membership and ability to carry out these terms of reference, and the need to include representatives from all areas of work within SC4. It is also considered important that the members of the WG shall also be members of other working groups.

- Nigel Shaw: No longer relevant.

The terms of reference for the group are to:

- o provide technical leadership across the standards under SC4;
 - Nigel Shaw: Does not clearly define scope of authority. Consistent and visible leadership is needed to keep SC4 manageable. WG10 can supply this need.
 - Jon Owen: The group collectively has to provide the needed leadership.
 - Julian Fowler: We need a transition period in which WG10 begins to assume leadership. Initially we will produce documents that define processes and directions.
 - Felix Metzger: We will sometimes need to make a decision to select one of several alternatives each of which could be used, but which should not be used together.
Matthew West : Making decisions between alternatives always involves ignoring some of the issues.
- o collect, evaluate and respond to issues raised against the architectures and the corresponding methods;
 - Nigel Shaw: Should be no problem of interpretation.
 - Yuhwei Yang : How does this relate to WG5/P1?
 - Nigel Shaw: The question is what the relationship between architectures and methods. We have to decide that.
- o review, at intervals not exceeding three years, the suitability of the architecture against current progress and future requirements;
 - Nigel Shaw: Comes from original proposal from Max Engeli.
- o identify and implement necessary changes and enhancements to the architectures.
 - Julian Fowler: This should be revised to say “architecture *documents*”
 - Nigel Shaw: It is not clear that WG10 can implement these changes themselves.
 - Yuhwei Yang: We have to have a process for implementing the changes that have to be made.
 - Jon Owen: Implementing decisions may be through our work in other WGs.
 - Phil Kennicott: We need to make our interpretation of this well known.
 - Julian Fowler: We have to provide the leadership that will assure the implementation.
 - Phil Kennicott: Once we make a decision, we need a say in SC4 to effect that decision.
 - Nigel Shaw: Only Editing now has a formal veto to assure consistency.

- Julian Fowler: Our main deliverable is the criteria by which to judge an SC4 standard. Anyone can be charged with implementing the criteria. There are now no clearly defined metrics for judging SC4 standards.
- Felix Metzger: The language suggests that member bodies believe that there are necessary changes. Our job is to identify what needs to be changed.
- Matthew West: Whatever criteria we set, there must be a process for verifying conformance. We should expect to hold the other WGs to those criteria.
- Julian Fowler: We will need to clearly define our scope in order for our architecture to apply.
- Nigel Shaw: There are no words here that imply openness or extensibility.
- Phil Kennicott : This group should take over Technical Editing responsibility for SC4 to assure that the product of SC4 is technical consistency.
 - Julian Fowler: This would be a major addition to our Terms of Reference.
 - Nigel Shaw: This should be taken as an issue for discussion.
- Felix Metzger: The current approval process is not working. Documents are being distributed that have major errors, and are still signed off by those who are charged with quality.

Consideration shall be given to:

- o other appropriate standard's architecture;
 - Nigel Shaw: How do SC4 standards relate to other standards.
 - Felix Metzger: All this mean is that we should learn from other standards.
 - Jim Fulton: The major issue is the interoperability of multiple standards.
 - Marcus: Where will these standards be published. It can't be part of STEP and apply to P-LIB or MANDATE.
 - Nigel Shaw: We first have to decide who gets bound by any standard we provide.
- o existing work in the global research and development community;
 - Nigel Shaw: Should be no issue.
- o prior work within SC 4;
 - Nigel Shaw: Should be no issue. We are not to start from scratch.
- o requirements for input from all existing work groups.
 - Nigel Shaw: We have to understand the needs of our customers. We need to provide a means of input from the WGs.

SC4 requests P-Members to recommend experts and their candidate for Convener of this new WG by 24 November. In making their recommendations, P-Members are also encouraged to provide suggestions for membership from other nations.

Resolution 222 (Greenville #12 - October 1994, SPAG #S11)

SC4 directs the Architecture WG to propose realistic strategic-policy alternative solutions to the requirements defined in SPAG document N124.

9. General Comments

- Yuhwei Yang: We need to define the issues we are to address.
- Julian Fowler: On Wednesday we need to brainstorm on our technical plan, and draft a preliminary report to SC4. Topic areas include:
 - AP interoperability
 - Requirements for STEP, P-Lib, MANDATE
 - STEP, P-LIB, MANDATE Architectures
 - ISO 10303 Architecture & Methodology Reference Manual
 - EXPRESS Edition 2
 - Applications Architecture
 - Requirements for Data Integration
 - Relationships to other data standards
 - Relationships to other language standards
 - Parametrics

Wednesday, March 22

1. Review of Draft Minutes

Jim Fulton distributed draft of first day's minutes [WG10 N003] with a request for corrections.

2. Review of Agenda, Membership & Action Items

Julian Fowler: Paul Clements is attending today's meeting to establish initial liaison with WG8.

Julian Fowler: Tom Thurman will act as initial point of contact with JWG9.

3. WG10 Ground Rules

Julian Fowler: After review of SC4 policies and procedures manual, there appears that most of the needs discussed on Monday are already covered, so we need to do little on our own.

Julian Fowler: Brad indicates that our membership is under our control. We can co-opt additional members if needed. Replacement on a permanent basis does not require nomination by national bodies. Alternate members can not be officially recognized, and can only participate as observers; they have no official status nor any right to participate in lieu of primary member. Any P-Member can make additional nominations to this group, and SC4 can make the decision to accept them.

Julian Fowler: Copies of all our documents must be transmitted to SC4 and ISO.

Julian Fowler: A quorum will be 50% of WG membership.

Mark Palmer: Meetings should be scheduled not to conflict with the other work we have to do, and should be announced well in advance.

Julian Fowler: We need a mechanism for recording minority opinions.

Nigel Shaw: According to ISO directives, consensus is achieved when there is no remaining sustained opposition. We already recognized that we need an issue log.

Phil Kennicott: An issue is not the same as a minority position. We need to record our positions and principles as well as issues. Minority positions address disagreements with the positions and principles.

Matthew West: Documenting minority views as issues is a good idea.

Jim Fulton: Issue logs are historical documents. The statement of positions and principles reflects current positions.

Matthew West: People who raise an issue should participate in its resolution.

Julian Fowler: This does not always work

Jon Owen: We have a responsibility to report back to the other working groups. Julian Fowler: We are not official representatives.

Mark Palmer: There is at least an informal responsibility.

Julian Fowler: Should issues be solicited through members as representatives, or directly from other WGs? Maybe we could conduct open meetings.

Matthew West: Only members can log official issues.

Nigel Shaw: We have to deal with issues raised by our members, by national bodies, by WGs and other organizations within SC4.

Jim Fulton: Any body recognized by ISO can comment on our work, and those comments must be recognized as issues.

Jon Owen: We are not different from other WGs, and on the same level. Julian Fowler: We have a somewhat different status in providing leadership to all of SC4.

Nigel Shaw: Jon is right: We don't yet have any official authority over other WGs.

Julian Fowler: Duties of members will be added to SC4 Policies and Procedures Manual.

Julian Fowler: Agendas should be structured to identify topics to be discussed, documents to be read and discussed, and actions to be taken.

Julian Fowler: Need a 28/28 day rule on minutes: Minutes must be distributed on paper within 28 days of the meeting; members have 28 days to comment.

Jochen Haenisch: Action lists should be distributed in advance of the minutes.

Julian Fowler: We will find out when the SC4 Policies and Procedures Manual will be available. The draft ground rules committee will coordinate its review.

Bernd Wenzel: If don't have alternates, can we assign our vote to another member as a proxy, in case we cannot reach consensus on issues.

Phil Kennicott: I don't think we should ever take a vote on a technical issue.

Bernd Wenzel: I retract my suggestion. But the agenda should identify the deliverables of the meeting, so that a member can assess the importance of attending.

Bernd Wenzel: Members should be able to invite non-members to speak on special issues.

4. Discussion of WG10 Work Items, Issues, Tasks, Activities

[Changes to WG10 N001.]

4.1. Brainstorming

1. AP Interoperability
2. Requirements for STEP, P-LIB, MANDATE
3. STEP, P-LIB, MANDATE Architectures
4. SO 10303 Architecture & Methodology Reference Manual
 - a. appendices assigned to WG10 by WG5/P1
 - b. review
5. EXPRESS edition 2
6. Applications Architecture (how to develop multiple, cooperative APs)
7. Requirements for data integration
8. Relationships to other data standards (SGML, ODA, EDIFACT)
9. Relationships to other language standards (CDIF, KIF, SQL3, ...)
10. Parametrics
11. Phil Kennicott: How is an architecture documented?
12. Phil Kennicott: [re 6] How do we deal with multiple overlapping ARMs

13. Hiroyuki Hiraoka: Granularity of APs
14. Hiroyuki Hiraoka: Placing of APs in larger framework
15. Jochen Haenisch: Initiation and creation of new integrated resources.
16. Jochen Haenisch: Part 104
17. Jochen Haenisch: Building block approach to APs
18. Jon Owen: Clear links with WG5/P1
19. Jon Owen: Relationships with any other standards
20. Jon Owen: Whatever we do, the requirements should be documented up front.
21. Nigel Shaw: Strategy for direction of SC4 standards, including the identification of missing components.
22. Nigel Shaw: SWOT (strengths, weakness, opportunities and threats) analysis of existing STEP, P-LIB, and MANDATE standards and approaches.
23. Nigel Shaw: Document assumptions
24. Nigel Shaw: Requirements for non-ISO standard classifications
25. Nigel Shaw: Mechanisms for business rules
26. Nigel Shaw: Requirements for testing that goes beyond conformance
27. Nigel Shaw: What is to be expected of something (systems and data) to be “STEP-based”?
28. Jim Fulton: What is an architecture?
29. Jim Fulton: How do SC4 products fit into an enterprise architecture?
30. Jim Fulton: Level 4 knowledge exchange.
31. Mark Palmer: Adequacy of documentation of methods, standards and architecture
32. Mark Palmer: Adequacy of infrastructure (arch, methods, procedures) to deliver usable standards
33. Mark Palmer: Adequacy of tools to support documentation and infrastructure
34. Mark Palmer: Relationship to WG4 and Implementers Forum
35. Mark Palmer: Guidance on modeling methods and planning frameworks
36. Mark Palmer: Architecture Primer for both internal and external customers
37. Paul: Why an architecture?
38. Bernd Wenzel: Cooperative usage of standards (AP Interoperability, harmonization with other standards)
39. Bernd Wenzel: Knowledge of and response to users’ needs
40. Bernd Wenzel: Team building (SC4)
41. Yuhwei Yang: Criteria that assist SC4 and P-Members in approving new projects
42. Yuhwei Yang: Establishment formal relationships with ALL WGs and projects
43. Yuhwei Yang: Education/training/communication
44. Martin Hardwick: How is the quality of an SC4 standard assessed
internal/external
fitness for purpose
45. Martin Hardwick: How is the scope of the SC4 standards determined?
46. Matthew West: Fit of P-LIB and MANDATE with STEP
47. Matthew West: What is a core model and where does one fit as in the architecture?
48. Matthew West: Document quality - clarity of requirements
49. Matthew West: Identify and understand underlying principles
50. Matthew West: Effectiveness and utility of results
51. Matthew West: Efficiency of process
52. Felix Metzger: Roles and relationship of elements within the architecture
ARM/AIM
53. Felix Metzger: Efficiency of work of WG10 - technical discussion
54. Horst Nowacki: Modular, flexible structures within the ARM.
55. Julian Fowler: Architecture, methods and procedures need to be consistent and supported by SC4
56. Nigel Shaw: Breaking the “closet mentality”. Too many SC4 participants aren’t aware of what else is going on in SC4.

Felix Metzger: People are funded to work on specific topics. Nigel Shaw: But projects as groups should be aware.

57. Julian Fowler: What guidance should be given to projects to govern their relationships to the rest of SC4.

58. Bernd Wenzel: SPAG resolution 222.

4.2. Discussion

Nigel Shaw: Contributors of items should expand the item into an explanatory paragraph.

Markus Lehne: We also need to classify these items as best we can.

Martin Hardwick: Where does this committee want to be this time next year? I still don't understand.

Julian Fowler: Are terms of reference sufficiently general that we have to decide what specifically we are going to do.

Phil Kennicott: Most of the items are administrative, not technical. This committee should be technically oriented.

Matthew West: The classification process should indicate which of these are outside our scope.

Felix Metzger: We need technical discussion of what interoperability.

Julian Fowler: Interoperability is something we need to begin to discuss this week.

Bernd Wenzel: We need to take account of SPAG N124 as required by SC4 Resolution 222.

Julian Fowler: We need to identify which of these items we are going to talk about this week.

Matthew West: Maybe we can do an examination of the items relevant to interoperability.

Phil Kennicott: We should brainstorm on what is meant by interoperability.

Felix Metzger: We can't prioritize until we have a better understanding of the meaning of the items.

Bernd Wenzel: The discussion of interoperability is going to be an extended one. It should be a brainstorming activity with no criticism until the session is over.

Julian Fowler: Seems to be consensus that we need an open discussion of all the definitions of interoperability. What material do we have to examine? Felix, Phil, Nigel, Jim, Markus, Bernd, Matthew will make brief informal suggestions. I have access to a number of papers.

Nigel Shaw: Two papers are available from PDES, Inc.

Bernd Wenzel: Phil should distribute the email from the old discussion group on interoperability.

Felix Metzger: There is an SC4 document that claims to define interoperability.

5. Discussion on Interoperability

The following reflects informal remarks made by WG10 members and observers regarding their concept of interoperability.

5.1. Nigel Shaw:

Different APs place different interpretations, specializations, constraints on IRs. The process tends to make the changes to components of APs difficult to see. Some of these specializations are domain specific. Some arise from assumptions about STEP.

Interoperability means something like this: One is when APs have intersecting areas of data of interest. Another is when we are planning resources common to multiple APs, but there is no clear boundary between APs, i.e., the schema is an integrated union of the APs. The question is how to define views appropriate to each AP.

The question is what are the causes of failure for systems to interoperate. They amount to failures to agree on common constraints.

5.2. Felix Metzger:

When enterprises need to exchange data, and they are using tools supporting different APs, the interchange of the intersection data will work for a while. When the exchange gets complicated, mapping the tools to the union of the data is important. If the APs are interoperable, then there is a combinatorial explosion of the ways in which they can be used together.

AP interoperability requires a modularization in which the AP's can be individually implemented and tested, and then mixed and matched with some assurance that they would work together.

5.3. Phil Kennicott:

I want to put all product data in a single place. This implies the union problem. All the APs that I need must be merged into a common model. A single piece of data should not be stored more than once.

There are currently a number of different objects that differ only in the source schema, or in WHERE rules that are on inspection in significantly different.

5.4. Jim Fulton:

There needs to be a process by which STEP and other standards and individual enterprises can build components, define how they are related to one another, and assure that instance data can be exchanged among components. Boeing needs to build its own superset of the IPIM against which every application can be mapped.

5.5. Markus Lehne:

Ship building needs almost all of STEP. We need to use most of the APs as components in a very large data architecture. There needs to be a well-defined way of building up applications by combining applications.

Julian Fowler : One major question is how we can test the combinations of APs.

Bernd Wenzel : This is a major problem.

William Hollier : We are doing significant work on conformance testing.

Jon Owen: There are current problems with testing so-called open systems.

Horst Nowacki : Systems need to exchange configuration information that will allow them to understand how and what data they can exchange. If combinations must be approved and tested by standards organizations before they can be used, they will never happen.

5.6. Bernd Wenzel:

The word ‘interoperability’ is wrong: it means systems can exchange data and achieve something useful. APs can only “cooperate”.

Intersection interoperability has two possibilities: one in which one application knows the schema of the other, and one in which it does not. There are applications that are the product of two applications rather than their union.

William Hollier : Our work has potential solutions. It is based on formal methods (the lambda calculus) which is very free-form. It involves multiple nested models of instantiation.

5.7. Matthew West:

There are four aspects of an interoperable environment:

- Business Operations
 - Buying
 - Selling
 - Making
 - Maintaining
- Management Information
- Descriptions, Specifications, Representations
- Business Structure
 - Products
 - Processes
 - Assets
 - Organizations

It is the business structure that ties the other three together. The same information is used across many aspects of the business. The overlap among users of APs is very large.

Interoperability requires sorting out the semantics, structures and constraints. We need a better process for mapping the components of ontologies to one another.

5.8. Julian Fowler:

The discussion has been useful.

[Summary omitted]

Our current methods may not be cost-effective in producing APs.

5.9. Yuhwei Yang:

The current standard does not provide for a standard implementation other than the AP. There are no conformable mechanisms for cooperative use of APs, or the processes or elements for doing it. Is this within the scope of SC4.

Run-time combinable of APs in a conformable way seems unlikely.

Something like the IPIM seems needed. But are the combined models the same models? View management is a significant problem.

All APs have some degree of intersection with other models, whether or not they are implemented by AICs.

Julian Fowler: However, APs need not share any requirements.

Matthew West: We need to be careful in changing the architecture to support interoperability/cooperativeness, to assure that we don't disable the critical value that STEP currently provides.

Yuhwei Yang: The current SC4 architecture does not rule out database implementations. Nor does it provide any support for it. The need is for a definition of rules for combining APs in an integrated database in a way that assures that conformable AP views can be extracted.

Felix Metzger: There is a question about when validation of constraints is checked. When I add data from multiple sources when to I check for compliance to all the rules.

Jim Fulton: The interface that ties one AP to the common pool has to be responsible assuring that all the constraints of the shared object are met.

6. Concluding Administrative Discussion

6.1. Possibility of Workshop on Interoperability

Bernd Wenzel: I think we can arrange a workshop in Sweden to address these issues.

Phil Kennicott: I don't think we can be ready for a significant discussion before the June meeting.

Matthew West: There are some important issues. I too can offer facilities.

Jim Fulton: There should be no additional meetings unless there is a critical need.

Markus Lehne: The shipbuilding APs need interoperability. This is critical in timing.

Mark Palmer: We do need additional reason for extra meetings.

Matthew West: An email conference is an alternative that can be quite effective.

Julian Fowler: There are a number of references we need to read before the next meeting.

Jim Fulton: We need to plan an executive session with JTC1 SC7/WG11 and JTC1 SC21/WG3/CSMF to plan a workshop to figure out convergent directions with SC4.

Julian Fowler: Who would be available for a workshop?

Jon Owen: What would be the deliverable of such a meeting?

Matthew West: We need an email conversation to determine whether there is a need.

Bernd Wenzel: We have already achieved the kind of consensus that I had intended for the workshop.

Mark Palmer : NIST can offer facilities for a pre-meeting.

6.2. Meeting Requirements

Julian Fowler: Should we plan to hold our meetings in the pre-meeting period. An alternative is to start the meeting on the Friday before.

Phil Kennicott: We should claim the Sunday morning and maybe the Wednesday morning of the regular session.

Julian Fowler: Let's meet on the Saturday prior to the meeting, plus the Wednesday morning. We will hold a pre-meeting workshop at NIST on the preceding Thursday and Friday?

6.3. Agenda Items

Phil Kennicott: We need to have a discussion on Architectures.

Jim Fulton: We need a joint meeting with other standards.

Jim Fulton: I am handing out N005 on KBE for review and discussion at some later meeting.

Appendix A: Addresses of Attendees

A1. Members

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Julian Fowler

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Philip R. Kennicott

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Felix Metzger

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Jon Owen

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A2. Observers

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Appendix B: Action Items

Action 1. Membership

Description: Determine representatives from WG2, WG8 and JWG9
Assigned to: Julian Fowler
Date Assigned: 95/3/20
Date Due: 95/3/22
Status: Complete
Resolution: Initial liaisons established.

Action 2. SPAG Resolution

Description: Distribute copies of SPAG N124
Assigned to: Julian Fowler
Date Assigned: 95/3/22
Date Due: Meeting + 28 days
Status: Open
Resolution:

Action 4. Interoperability Documents

Description: Identify and distribute relevant documents on interoperability.
Assigned to: Julian Fowler
Date Assigned: 95/3/22
Date Due: Meeting + 28 days
Status: Open
Resolution:

Action 5. Expand Items on Brainstorm List

Description: Contributors of items should expand the item into an explanatory paragraph.
Assigned to: All members.
Date Assigned: 95/3/22
Date Due:
Status: Open
Resolution:

Action 6. Expand AP Interoperability Discussion

Description: Contributors of items should expand the item into an explanatory paragraph.
Assigned to: Nigel, Phil, Felix, Jim, Matt, Bernd, .
Date Assigned: 95/3/22
Date Due:
Status: Open
Resolution:

Action 7. SOLIS Directory

Description: Establish SOLIS Directory for WG10.
Assigned to: Julian Fowler.
Date Assigned: 95/3/22
Date Due:
Status: Open

Resolution:

Appendix C: Document Log

What follows is the Document Log of ISO TC184/SC4/WG10 (Architecture Working Group) as of 95/3/22.

N001. WG10 Draft Agenda for Sydney Meeting.

Author: Julian Fowler.
Submitted by: Julian Fowler on 95/3/20

N002. Resolution 217 (Greenville #7 - October 1994, PMAG 6, 7).

Author: SC4.
Submitted by: Julian Fowler on 95/3/20

N003-R1 Draft Minutes of WG10, Monday, 20 March, 1995.

Author: Jim Fulton.
Submitted by: Jim Fulton on 95/3/22

N004. Resolution 222 (Greenville #12 - October 1994, SPAG #S11).

Author: SPAG.
Submitted by: Julian Fowler on 95/3/20

N005. Strategy for the Integration of Knowledge-Based Engineering Data.

Author: Jim Fulton.
Submitted by: Jim Fulton, 95/3/22

